

WHAT IS CLAIMED IS:

1. A method for dynamically adjusting a component of a vehicle, in which a characteristic variable that influences behavior of the vehicle component can be varied automatically or manually while traveling, said method comprising:

determining a vehicle state variable that indicates the behavior of the driver, over a predefined time period directly after a change in a characteristic variable of the vehicle component;

determining characteristic variables of an oscillation profile of the vehicle state variable within a time period under consideration;

comparing the determined characteristic variables with assigned setpoint variables in order to determine whether the driver adapts to a change in the behavior of the vehicle component which results from the change in the characteristic variable of the vehicle component; and

reversing at least partially the change in the characteristic variable of the vehicle component if the driver does not adapt to the change in the behavior of the vehicle component;

wherein, whether the driver adapts to the change in behavior is indicated by whether one or more characteristic variables of the oscillation profile exceed the assigned setpoint variables.

2. The method according to Claim 1, wherein at least one of vehicle steering angle and vehicle lateral acceleration is determined as a state variable which can be influenced by the behavior of the driver.

3. The method as claimed in Claim 1, wherein one of amplitude, frequency and a degree of attenuation of the state variable which can be influenced by the driver is determined and used as basis for the comparison with an assigned setpoint variable.

4. The method according to Claim 3, wherein a change in the characteristic variable of the vehicle component is reversed if the number of oscillations whose amplitude exceeds a minimum value is larger than a predefined setpoint number of oscillations.

5. The method according to Claim 1, wherein:

reversal of a change in the characteristic variable of the vehicle component takes place in a plurality of increments;

after each reversal, the state variable which characterizes the driver behavior is determined and compared with the setpoint variable assigned to it; and

when the setpoint variable is exceeded or undershot a further reversal is carried out.

6. The method according to Claim 5, wherein in a first stage of the reversal, the switchover phase for changing the characteristic variable is chronologically prolonged.

7. The method according to Claim 5, wherein in a second stage of the reversal, a variation range in which the change in the characteristic variable is permitted is reduced.

8. The method according to Claim 5, wherein in a third stage of the reversal, the characteristic variable is set to a standard value which corresponds to a series adjustment.

9. The method according to Claim 1, wherein:

the reversal is cancelled after expiration of a predefined time period;
and

the characteristic variable is set to the value present before the reversal.

10. A device for dynamically adjusting a vehicle component which affects operation of the vehicle, and whose behavior is influenced by a characteristic variable, said device comprising:

means for automatically or manually changing the characteristic variable while traveling, via an actuator element;

a control unit which can adjust said actuator element via actuation signals in accordance with a stored calculation rule; and

sensors for supplying measurement signals to said control unit for generating said actuation signals; wherein,

a measurement signal which corresponds to a vehicle state variable that reflects behavior of a vehicle operator is determined over a predefined time period;

characteristic variables of an oscillation profile of measured vehicle state variables are compared in a comparison unit of the control unit with assigned setpoint variables to determine whether the vehicle operator adapts to the change in

the behavior of the vehicle component which results from a change in the characteristic variable of the vehicle component;

an actuation signal, which can be fed to the actuator element and which at least partially reverses the change in the characteristic variable of the vehicle component, is generated, if the driver does not adapt to the change in the behavior of the vehicle component; and

whether the driver adapts to the change in behavior is determined by whether one or more characteristic variables of the oscillation profile exceed the assigned setpoint variables.

11. The device according to Claim 10, wherein the vehicle component which influences the driving behavior is one of the vehicle brake, the power steering system, the drive chain controller and the spring/damper system in the vehicle.

12. A method for controlling operation of a vehicle having at least one component whose output affects vehicle dynamics in response to a characteristic variable, said method comprising:

detecting a manually or automatically generated change in said characteristic variable, which change causes a change of said vehicle dynamics;

in response to said change of the characteristic variable, measuring a state variable that characterizes a response of an operator of the vehicle to said change of vehicle dynamics;

evaluating said measured state variable to determine whether said operator adapts to said change in vehicle dynamics; and

reversing, at least partially, said change of the characteristic variable if the driver does not adapt to the change in vehicle dynamics.

13. The method according to Claim 12, wherein whether said operator adapts to the change of vehicle dynamics is determined by whether at least one oscillation parameter of said measured state variable exceeds a preset threshold value.